STATEMENT OF THE LEGAL AND FACTUAL BASIS FOR THE TERMS OF THE PROPOSED PERMIT
[MDAQMD Rule 1203(B)(1)(a)(i)]

STATEMENT OF THE LEGAL AND FACTUAL BASIS FOR THE TERMS OF THE PROPOSED PERMIT **[1203(B)(1)(a)(i)]**

COMBINED TITLES IV & V FEDERAL PERMIT TO OPERATE
Facility named COOLWATER GENERATING STATION

owner name changed to RELIANT ENERGY COOLWATER, LLC

[facility formerly owned by Southern California Edison and sold to Alta Power Generation, LLC]

Federal Operating Permit # 104801880

original date: March 2, 1999
revised/resubmitted: May 28, 1999
issued: June 28, 1999

Processing Engineer:

William H. Weese

Air Quality Engineer III

FACILITY IDENTIFYING INFORMATION:

Owner/Company Name:	RELIANT ENERGY COOLWATER, LLC
Owner Mailing Address:	Reliant Energy Coolwater, LLC 12301 Kurland Houston, Texas 77034
Facility Name:	COOLWATER GENERATING STATION
Facility Location:	37000 Santa Fe Street, Daggett, CA 92327.
Facility Mailing Address:	P.O. Box 337, Daggett, CA 92327.
MDAQMD Federal Operating Permit Number:	104801880
MDAQMD Company Number:	1048
MDAQMD Facility Number:	01880
Responsible Official:	Mr. David G. Tees
Title:	Executive Vice President of Power Operations
Phone Number:	(713)207-2023

Facility "Site" Contacts:

Mr. Dick Dusenbury, Manager, Reliant Energy Coolwater, LLC (760-254-5241)
Mr. Gene Gordon, Environmental Specialist, SCE O&M Services (760-254-5205)

Facility "Off Site" Contacts:

Mr. Ben Carmine, Reliant Energy, Manager, Air Resources Division (713-945-8191)
Mr. Brian McQuown, Reliant Energy, for Title V permit issues (713-945-7211)
@ Mail Stop A-295, 12301 Kurland, Houston, Texas 77034

Nature of Business:	Electric Power Generation
SIC Code:	4911 -- Electric Power Generation
ORIS Code:	0329 -- Phase II Acid Rain Source
Facility Location:	UTM (Km) 514E / 3858N

STATEMENT OF THE LEGAL AND FACTUAL BASIS FOR THE TERMS OF THE PROPOSED PERMIT **[1203(B)(1)(a)(i)]**

Statutory and Regulatory Authorities: Pursuant MDAQMD Regulation 12, Program - Federal Operating Permits, a.k.a. Title V (Adopted 7/25/94, Amended 02/22/95, Additional Rules adopted 06/28/95, 7/31/95) and 02/05/96 FR 4217 (Interim Approval), in accordance with Rule 221 - *Federal Operating Permit Requirement*, 40 CFR 52.220(c)(216)(i)(A)(2) - 02/05/96 61 FR 4217 and Rule 1210 - *Acid Rain Provisions of Federal Operating Permits*, and Titles IV and V of the Clean Air Act of 1990, the Mojave Desert Air Quality Management District issues this permit.

The Coolwater Generating Station Title IV & V Federal Operating Permit # 104801880, was developed by consulting District Permit conditions for the existing power plant equipment and the SIP Rule requirements for the federally applicable rules applicable to the existing power plant. In addition the MDAQMD Title V Program / Rules, having received Interim Program Approval from the USEPA, were also consulted.

I. BACKGROUND:

The Federal Clean Air Act Amendments of 1990 established a nation-wide permit to operate program commonly known as "Title V". MDAQMD adopted Regulation XII [Rules 1200 - 1210] and Rule 221 - *Federal Operating Permit Requirement*; [Version in SIP = Current, 40 CFR 52.220(c)(216)(i)(A)(2) - 02/05/96 61 FR 4217], to implement both the Federal Operating Permit and Acid Rain Permit programs locally and received Interim Program Approval from EPA on March 6, 1996. RELIANT ENERGY COOLWATER, LLC [Note: name changed from Alta Power Generation, LLC; original facility owner until early 1998 was Southern California Edison (SCE)] applied for a Title V - Federal Permit to Operate on December 19, 1996 and applied for a Title IV Acid Rain Permit for the Coolwater Generating Station on December 1, 1995. As stated above, The Clean Air Act amendments also requires a second federal permit system just for power plants which is commonly known as the "Acid Rain program". MDAQMD adopted Rule 1210 - *Acid Rain Provisions of Federal Operating Permits*, [Federal Part 72 Permits], to implement that program. This *Statement of Legal and Factual Basis*, pursuant to Rule 1203(B)(1)(a)(i), is intended to assess the adequacy of these applications and to explain the District's basis in composing the combined Title V and Acid Rain Federal Operating Permit for the Coolwater Generating Station.

Coolwater Generating Station [owned by Reliant Energy Coolwater, LLC and formerly named Alta Power Generation, LLC and previously owned by Southern California Edison (SCE)] Title V Federal Operating Permit application received on December 19, 1996 met the Part 70 application deadline of March 6, 1997 for MDAQMD facilities [NOTE: all MDAQMD facilities subject to Title V were required to submit Title V applications by March 6, 1997]. The SCE Acid Rain application was received on December 1, 1995, which also met the application deadline for the Acid Rain program of December 31, 1995. Completeness evaluations were performed [see Attachment A for letters] and both applications were deemed substantially complete by the District's letter to SCE for the Coolwater Generating Station / power plant dated February 11,

1997.

The District's approach to the Acid Rain and Title V programs is to issue a single Federal Operating Permit for the entire facility which satisfies the federal requirement for a permit under Rule 221 [*NOTE: MDAQMD maintains a separate Title V and District permits programs*]. All federal and state and most District only requirements associated with the emission of air contaminants are included in the Federal Operating Permit. All documents, which are not readily available to the public and are necessary to support the permit, are to be included. The District has taken the approach that all of the following documents are readily available to the public and, therefore, will not be included: *Code of Federal Regulations, California Code of Regulations and Health and Safety Code, District Rules and Regulations [both those which are current and those which appear in the California State Implementation Plan], the continuous emission monitoring system quality assurance and monitoring plans [available at Coolwater Generating Station / power plant and at the District's office], all test methods, copies of District Authorities to Construct and Permits to Operate [available at the District's office]*.

The USEPA, Region 9 was mailed a draft of the proposed permit on February 17, 1999. The USEPA statutory 45-day review period will expire on or before April 9, 1999. Hopefully without any substantial objection or comment having been received. The 30 day Public Notice will be/was published on March 10, 1999 and will end on April 9, 1999. USEPA faxed and mailed an "Objection Letter" to Mr. Charles Fryxell, APCO, on April 9, 1999.

Reliant Energy Coolwater, LLC [formerly, ALTA Power Generation, LLC] Mr. Brian McQuown was emailed copies of the draft permits September 4 and December 23, 1998, and February 10, 11 and 16, 1999 for their (his) input, comment, and final information. Detailed phone conversations occurred between Reliant Energy Coolwater, LLC and MDAQMD staff on October 28, 1998, January 28, 1999, February 9, 1999, and February 11, 1999. The District incorporated most comments into the final draft [T5ALTAPOWER8.8.8.8.rt66.doc] which was both e-mailed [2-16-99] and US Postal Service mailed [2-17-99] to USEPA for comment and was/will be Publicly Noticed [3-10-99] pursuant to Rule 1207(A) requirements as indicated above. Final USEPA comments and 4/9/99 Objection changes were incorporated into the final Coolwater Generating Station, T4/T5 Federal Operating Permit forwarded to EPA on May 28, 1999. [T5Coolwater.Generating.Station.8.8.8.8.rt66.doc]. After EPA gave their verbal OK to issue the T5/T4 Permit on June 23, 1999 the permit was issued June 28, 1999.

1. *No substantial public comments or objections were expected and no public comments were received.*
2. *USEPA sent an "Objection Letter" and the District updated the draft Coolwater Generating Station T4/T5 Permit pursuant to USEPA objections. In addition, most "Recommendations" were also addressed and the draft permit updated.*

Rule 1203 (D)(1) outlines Title V Permit content requirements as follows:

II. TITLE V PERMIT CONTENTS [Rule 1203 (D)(1)]:

All Federal Operating Permits shall contain, at a minimum, the following terms and conditions:

A. Identification of Applicable Requirements: ***COMPLETED(see the following)***

1. Standard conditions for generally applicable requirements do not list those processes to which they apply as allowed by EPA's White Paper One, page 11, section 4, last sentence of paragraph 2.

2. Minor New Source Review (NSR). All existing permit conditions, which are based on previous authority to construct conditions, are considered applicable federal requirements because those pre-construction review actions resulted from SIP Rule 203 - *Permit to Operate* and SIP Rule 204 - *Permit Conditions*.

3. Federal Applicable/Enforceable Requirements:
District Rule 1201 (P): "Federally Enforceable" - Any requirement, condition or other term which is fully enforceable by USEPA pursuant to the provisions of 42 U.S.C. §7413 (Federal Clean Air Act §113) or the public pursuant to the provisions of 42 U.S.C. §7604 (Federal Clean Air Act §304).
District Rule 1201 (G): "Applicable Requirement" - Any of the following requirements, including requirements that have been promulgated or approved by USEPA through rulemaking at the time of permit issuance but have future effective dates, as they apply to a Facility or Permit Unit:

   (a) Any standard or other requirement contained in the applicable implementation plan for the District, and any amendments thereto, approved or promulgated pursuant to the provisions of Title I of the Federal Clean Air Act (42 U.S.C. §§7401-7515).

   (b) Any term or condition of any preconstruction permit issued pursuant to regulations approved or promulgated under Title I of the Federal Clean Air Act (42 U.S.C. §§7401-7515).

   (c) Any standard or other requirement under 42 U.S.C. §§7411, Standards of Performance for New Stationary Sources (Federal Clean Air Act §111); 42 U.S.C. §7412, Hazardous Air Pollutants (Federal Clean Air Act §112); and any regulations promulgated thereunder.

   (d) Any standard or other requirement under Title IV of the Federal Clean Air Act (42 U.S.C. §§7651-7651o) or the regulations promulgated thereunder.

   (e) Any requirements regarding monitoring, analysis, and compliance established pursuant to 42 U.S.C. §7414(a)(3), Record keeping, Inspections, Monitoring and

Entry (Federal Clean Air Act §114); 42 U.S.C. §7661c(b), Permit Requirements and Conditions (Federal Clean Air Act §504); and the regulations promulgated thereunder.

(f) Any standard or other requirement governing Solid Waste Incineration Units under 42 U.S.C. §7429, Solid Waste Combustion (Federal Clean Air Act §129) and the regulations promulgated thereunder.

(g) Any standard or other requirement for consumer or commercial products under 42 U.S.C. §7511b(e) (Federal Clean Air Act §183) and the regulations promulgated thereunder.

(h) Any standard or other requirement of the regulations promulgated under Title VI of the Federal Clean Air Act (42 U.S.C. §§7671-7671q) unless the USEPA has determined that such requirement need not be contained in a Federal Operating Permit.

(i) Any national ambient air quality standard or increment or visibility requirement under part C of Title I of the Federal Clean Air Act (42 U.S.C. §§7401-7515), but only as it would apply to temporary sources pursuant to the provisions of 42 U.S.C. 7661c(e) (Federal Clean Air Act §504(e).

4. The MDAQMD re-confirmed the federally applicable/enforceable requirements listed in the Reliant/Alta - May 22, 1998 update to the original SCE-Coolwater Title V Application and those requirements included in the proposed Title V Permit. See the following discussions below:

40 CFR, Parts 60.7, 60.8 and 60.13; Subpart A - New Source Performance Standards, General Provisions
This facility is not subject to the requirements of this part because the facility started construction before the respective applicability dates as discussed in the following.

40 CFR Part 60.330, Subpart GG - Standards of Performance for Stationary Gas Turbines
The Coolwater Combined Cycle Turbines have an ATC issue date of 1-8-76 and were constructed prior to NSPS applicability date of 10-3-77.

40 CFR Part 60.40, Subpart D - Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971
The Coolwater Boilers were constructed prior to 1970 and prior to the NSPS applicability date of 8-17-71.

40 CFR Part 60.40a, Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced After September 18, 1978
The Coolwater Boilers were constructed prior to 1970 and prior to the NSPS applicability date of 9-18-78.

40 CFR Part 60.40b, Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
The Coolwater Boilers were constructed prior to 1970 and prior to the NSPS applicability date of 6-19-84.

40 CFR Part 60.40c, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
The Coolwater Boilers were constructed prior to 1970 and prior to the NSPS applicability date of 6-9-89.

40 CFR Part 60, Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and Prior to May 19, 1978
Storage tank # 1, a 2.52 million gallon tank, was constructed prior to 1970 and prior to the NSPS applicability date of 6-11-73: No reconstruction or modification has occurred, therefore, this NSPS does not apply to this equipment.

40 CFR Part 60, Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978 and Prior to July 23, 1984
Storage tank # 1, a 2.52 million gallon tank, was constructed prior to 1970 and prior to the NSPS applicability date of 5-18-78: No reconstruction or modification has occurred, therefore, this NSPS does not apply to this equipment.

40 CFR Part 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction , Reconstruction, or Modification Commenced after July 23, 1984
Storage tank # 1, a 2.52 million gallon tank, was constructed prior to 1970 and prior to the NSPS applicability date of 7-23-84: No reconstruction or modification has occurred, therefore, this NSPS does not apply to this equipment.

40 CFR Part 61, Subpart M - National Emission Standard for Asbestos
This facility on an as needed basis is subject to Section 61.145 through 61.147 - standards for the demolition and renovation of asbestos. Historically, the facility has been in compliance with the requirements of these standards. Appropriate conditions will be included on the permit to ensure compliance with these requirements.

40 CFR Part 82 - Protection of Stratospheric Ozone
This facility is in compliance with the requirements of this part. Any servicing of air conditioners is performed by a qualified contracting company. An appropriate condition will be included on the permit to ensure continued compliance with these requirements.

Other - Coolwater Generating Station - Facility Support Equipment

The underground gasoline tank was constructed and given a PTO on 9-21-79. The paint spray booth was constructed and given a PTO on 9-21-79. No NSPS, NESHAPS or MACT apply to this equipment or the Coolwater Generating Station - facility because no MACT has been proposed and the total toxic emissions are less than the applicability threshold of 10 tons per year.

B. Emissions limitations and/or standards, including operational limitations, which assure compliance with all Applicable Requirements and a reference to the origin and authority of each term or condition contained in the Federal Operating Permit: ***COMPLETED***

C. Monitoring requirements including but not limited to: [40 CFR 70.6(a)(1)] [see following] ***EPA, April 9, 1999 Objection Letter led to the incorporation of Periodic Monitoring Requirements as outlined in the Objection Letter. In addition, various CAPCOA/CARB/EPA Periodic Monitoring Workgroup proposed Periodic Monitoring Requirements were incorporated into the the updated Reliant Energy/ Coolwater Generating Station Title V / Title IV Permit:***

(i) All emissions monitoring and analysis methods required by an Applicable Requirement.

(ii) Periodic monitoring, testing or record keeping (including test methods sufficient to yield reliable data) to determine compliance with an Applicable Requirement that does not directly require such monitoring.

(iii) Necessary requirements concerning use and maintenance of equipment including the installation and maintenance of monitoring equipment.

D. Record keeping requirements, where applicable, including but not limited to: [see following] ***All COMPLETED***

(i) Records of required monitoring information including dates and times of sampling, operating conditions at the time of sampling, date of analysis, analytical techniques and methods, the person or company performing the analysis, and the results of the analysis.

(ii) The retention of all records for a period of at least five (5) years from the date of monitoring.

E. Reporting requirements, where applicable, including but not limited to: [see following] ***All COMPLETED***

(i) Submittal of any required monitoring reports at least every six (6) months.

(ii) Prompt reporting of all deviations from permit requirements including those attributable to breakdown conditions. Prompt reporting shall be determined in compliance with District Rule 430.

F. Various Standardized Provisions and/or Conditions: [see following] ***All COMPLETED***

(i) A severability clause.

(ii) A provision which states that the permit holder shall comply with all conditions of the Federal Operating Permit. Any noncompliance constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; the termination,

revocation and reissuance, or modification of the Federal Operating Permit; and/or grounds for denial of a renewal application.

(iii) A provision which states that the need to halt or reduce activity to maintain compliance with the provisions of the Federal Operating Permit, or for any other reason, is not a defense in an enforcement action.

(iv) A provisions which states that the Federal Operating Permit may be modified, revoked, reopened, reissued or terminated for cause.

(v) A provision which states that the filing of an application for modification; a request for revocation and re-issuance, or termination; or notifications of planned changes, or anticipated noncompliance does not stay any condition of the Federal Operating Permit.

(vi) A provision which states that the permit does not convey any property rights of any sort, or any exclusive privilege.

(vii) A provision which states that the Permit holder shall furnish to the District, within a reasonable time as specified by the District, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, terminating or determining compliance with the Federal Operating Permit.

(viii) A provision which states that the Permit holder shall, upon request, furnish to the District copies of records required to be kept pursuant to conditions of the Federal Operating Permit.

(ix) A provision requiring the payment of annual permit renewal fees and other applicable fees as prescribed in District Rule 312.

(x) A provision stating that no permit revision shall be required under any approved economic incentives, marketable permits, emissions trading or other similar programs provided for in the permit.

(xi) Terms and conditions, if applicable, for reasonably anticipated operating scenarios identified by the Facility in its application which require the Facility, contemporaneously with making the change from one operating scenario to another, to record in a log at the Facility a record of the scenario under which it is operating; and ensure that each alternative operating scenario meets all Applicable Requirements.

(xii) Terms and conditions, if requested by the applicant, for the trading of emissions increases and decreases within the Facility to the extent any Applicable Requirements allow for such trading without case-by-case approval. Such terms conditions shall include all terms and conditions to determine compliance with all Applicable Requirements; and meet all Applicable Requirements.

G. Compliance Conditions: [see following] ***All COMPLETED***

(i) Inspection and entry requirements which require that the Permit Holder allow an authorized representative of the District to enter upon the Permit holder's premises, at reasonable times.

(ii) Provisions which allow an authorized representative of the District to have access to and copy any records that must be kept under conditions of the Federal Operating Permit.

(iii) Provisions which allow an authorized representative of the District to inspect any Permit Unit, equipment, practice, or operation regulated or required under the Federal Operating Permit.

(iv) Provisions which allow an authorized representative of the District to sample or monitor substances or parameters for the purpose of assuring compliance with the Federal Operating Permits or with any Applicable Requirement.

(v) A Compliance Plan.

(vi) A restatement, if applicable, of the requirement that the Permit holder submit progress reports at least semiannually pursuant to a schedule of compliance. Such progress reports shall comply with the provisions of District Rule 1201(I)(3)(iii).

(vii) Certification requirements including the frequency of submission, not less than annually, for Compliance Certifications.

(viii) Requirements that methods for monitoring compliance be included in the Compliance Certifications.

(ix) Requirements that all Compliance Certifications be contemporaneously submitted to USEPA.

(x) Any additional certification requirements as specified in 42 U.S.C §7414(a)(3), Recordkeeping Inspections Monitoring and Entry (Federal Clean Air Act §114(a)(3)) and 42 U.S.C. §7661c(b), Permit Requirements and Conditions (Federal Clean Air Act §503(b)) or in regulations promulgated thereunder.

H. Fugitive Emissions: ***COMPLETED***

(i) Fugitive emissions shall be included in the permit and permit conditions in the same manner as stack emissions.

II ACID RAIN PERMIT REQUIREMENTS:

A. After an Acid Rain permit application has been determined to be complete, the District shall prepare: [see following] ***All COMPLETED***

(i) A draft Acid Rain permit in accordance with the requirements set forth in 40 CFR 72.50 (incorporated herein by this reference) unless the District denies the Acid Rain permit.

(ii) A statement of basis which contains the elements set forth in 40 CFR 72.64 (incorporated herein by this reference).

B. After the draft Acid Rain permit and statement of basis have been prepared, the District shall submit a copy of these documents to USEPA: *[mailed February 17, 1999]*

C. Public notice and comment on the draft Acid Rain permit shall thereafter be performed pursuant to the provisions contained in District Rule 1207(A) and 1207(B): *[published March 10, 1999]*

D. Following the close of the public comment period, the District shall incorporate all necessary changes into the draft Acid Rain permit and issue a proposed Acid Rain permit: *[completed April 9, 1999]*

E. Following the issuance of the proposed Acid Rain permit, the District shall submit the proposed Acid Rain permit to USEPA for review: *[mailed February 17, 1999]*

F. Following USEPA review of the proposed Acid Rain permit, the District shall incorporate any required changes and issue or deny the Acid Rain permit or, in the alternative, allow USEPA to issue or deny the Acid Rain Permit pursuant to the provisions found in District Rule 1209(B): *[USEPA Objection Letter received April 9, 1999/ District incorporated changes to draft Coolwater T4/T5 Permit addressing USEPA Objections]*

G. No Acid Rain permit (including a draft or proposed permit) shall be issued unless USEPA has received a certificate of representation for the designated representative of the facility containing an affected unit in accordance with 40 CFR 72.20 through 72.25 inclusive. ***COMPLETED***

H. The District shall issue, pursuant to the provisions of Rule 1210, Acid Rain permits to all facilities [In MDAQMD - only subject to Coolwater Generating Station] containing an affected unit and subject to Phase II of the Acid Rain Program so long as:

(i) The Federal Operating Permit Program for the District has been approved, including partial or interim approval, by USEPA. ***COMPLETED***

(ii) The designated representative for the facility submitted a timely and complete Acid Rain permit application. ***COMPLETED***

(iii) Have an effective date which is the later of January 1, 2000 or where the affected unit is subject to the provisions of 40 CFR 72.6(a)(3) the deadline for monitor certification under 40 CFR 75. ***EFFECTIVE DATE SAME AS TITLE V PERMIT.***

(iv) Be reopened, not later than January 1, 1999, to add the Acid Rain Program requirements for nitrogen oxides provided that the designated representative of the facility containing an affected unit has submitted a timely and complete Acid Rain permit application for nitrogen oxides pursuant to the provisions of 40 CFR 72.21. ***NOT APPLICABLE TO THIS GAS FIRED UNIT***

(v) Such reopening shall not alter the term of the Acid Rain permit. ***NOT APPLICABLE TO THIS GAS FIRED UNIT***

(vi) An Acid Rain permit issued pursuant to Rule 1210 shall be effective for a period of five (5) years after the date of issuance. ***COMPLETED***

(vii) An Acid Rain permit issued pursuant to Rule 1210 shall be binding on any new owner or operator or upon any new designated representative of any facility containing an affected unit governed by the permit. ***COMPLETED***

(viii) Invalidation of the Acid Rain portion of a Federal Operating Permit shall not affect the continuing validity of the remainder of the Federal Operating permit, nor shall invalidation of any other Portion of the Federal Operating Permit affect the continuing validity of the Acid Rain portion of the Federal Operating Permit. ***COMPLETED***

III. CONCLUSIONS AND RECOMMENDATION:

In conclusion, the proposed combined **Coolwater Generating Station - Title IV and Title V Permit** [owned by Reliant Energy Coolwater, LLC**]** has been found to satisfy all of the requirements of District Rule 221, Rule 312, Regulation XII Rules, and the District's Title IV and Title V Permit Program requirements and USEPA - April 9, 1999 Objection requirements.

Therefore, it is recommended that this combined Title IV/V Federal Operating Permit be issued to satisfy those requirements on or before July 9, 1999.

Pursuant to USEPA April 9, 1999 Objection / Recommendations letter; the revised Coolwater Title V/IV Permit, the revised Statement of Basis, and the Transmittal/Response letter are being physically mailed via US Postal Service Priority Mail on June 1, 1999. In addition, the revised Coolwater Title V/IV Permit & the revised Statement of Basis documents are being electronically e-mailed on May 28, 1999 to Mr. Doung Nguyen.

William H. Weese
Air Quality Engineer III
June 28, 1999

APPENDIX "A"

For additional discussions of EPA Ojections/Recommendations Issues please see MDAQMD Transmittal Letter accompanying revised Coolwater Generating Station Federal Operating Permit and Statement of Basis Document:

OBJECTION ISSUES:

Part II (A) (18). Owner/Operator shall not discharge into the atmosphere from this facility, carbon monoxide (CO) exceeding 2000 ppm measured on a dry basis, averaged over a minimum of 15 consecutive minutes.

(a) The provisions of this condition shall not apply to emissions from internal combustion engines.

[Rule 407 - *Liquid and Gaseous Air Contaminants*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(C) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]

Calculate the CO concentration in turbine exhaust gas using the following assumptions/calculations:

1. Based on U.S. EPA AP-42; section 3.1, Stationary Gas Turbines For Electricity Generation, Table 3.1-4, lists CO emissions for natural gas turbines with water injection at 0.28 lb CO per 10^6 Btu fuel input. Assuming 1000 Btu / ft^3 of natural gas, the emission factor for CO is 280 lb of CO produced / 10^6 ft^3 of natural gas burned.
2. From 40 CFR 60 Appendix A, Method 19, the F_d factor for natural gas is 8710 dscf /10^6 Btu (68 degrees Fahrenheit). Rule 407 specifies the CO concentration on a dry basis.
3. For the purposes of this calculation, excess air will not be considered in calculating the CO concentration (most conservative):

   Cubic feet of CO produced per 10^6 ft^3 of natural gas burned:
   (280 lb) (1 lb mol /28 lb) (385 ft^3 / mol) = 3850 ft^3 CO (385 ft^3 / mol at 68 degrees Fahrenheit)

   Dry cubic feet of combustion gas formed from 10^6 ft^3 of natural gas burned:
   (10^6 ft^3 gas) (1000 Btu / ft^3) (8710 dscf / 10^6 Btu) = 8,710,000 dscf

   CO concentration = 3850 ft^3 / 8.71 10^6 ft^3 = 442 ppm (most conservative)

   Conclusion: Turbine exhaust CO concentration of 442 ppmv complies with Rule 407 CO limit of 2000 ppmv.

Calculate the CO concentration in boiler exhaust gas using the following assumptions/calculations:

1. Based on U.S. EPA AP-42; Section 1.4, Table 1.4-2, lists the CO emission factor for natural gas combustion in boilers to be 35 lb CO per 10^6 ft^3 of natural gas burned. Assume 1000 Btu / ft^3 of natural gas.
2. From 40 CFR 60 Appendix A, Method 19, the F_d factor for natural gas is 8710 dscf /10^6 Btu (68 degrees Fahrenheit). Rule 407 specifies the CO concentration on a dry basis.
3. For the purposes of this calculation, excess air will not be considered in calculating the CO concentration (most conservative):

Cubic feet of CO produced per 10^6 ft^3 of natural gas burned:
(35 lb) (1 lb mol / 28 lb) (385 ft^3 / mol) = 481 ft^3 CO (385 ft^3 / mol at 68 degrees Fahrenheit)

Dry cubic feet of combustion gas formed from 10^6 ft^3 of natural gas burned:
(10^6 ft^3 gas) (1000 Btu / ft^3) (8710 dscf / 10^6 Btu) = 8,710,000 dscf

CO concentration = 481 ft^3 / 8.71 10^6 ft^3 = 55.2 ppm (most conservative)

Conclusion: Boiler exhaust CO concentration of 55.2 ppmv complies with Rule 407 CO limit of 2000 ppmv.

Part II (B) (3). Owner/Operator shall not emit from Combined Cycle Gas Turbines Particulate Matter that exceeds **both** of the following two limits:
(a) 5 kilograms (11 pounds) per hour; and
(b) 7.6 milligrams per standard cubic meter (0.003 grains/standard cubic foot), referenced at standard, dry stack-gas conditions and 15.0 percent by volume stack-gas oxygen.
[**SIP Pending:** Rule 475 - *Electric Power Generating Equipment* as adopted 08/25/97 and submitted 03/10/98]

Pursuant to EPA Objection, see attached copy of Source Test Results which demonstrate that boilers and turbines combusting natural gas complies with the emission limits specified in Rule 475. In order to fire diesel/distillate owner/operator will be required to demonstrate compliance before being allowed to burn these fuels.

Part II (C) (4). Owner/Operator shall not emit from Boilers, Particulate Matter that exceeds **both** of the following two limits:
(a) 5 kilograms (11 pounds) per hour; and
(b) 23 milligrams per standard cubic meter (0.01 gr/standard cubic foot), referenced at standard, dry stack-gas conditions and 3.0 percent by volume stack-gas oxygen.
[**SIP Pending:** Rule 475 - *Electric Power Generating Equipment* as adopted 08/25/97 and submitted 03/10/98]

Pursuant to EPA Objection, see attached copy of Source Test Results which demonstrate that boilers and turbines combusting natural gas complies with the emission limits specified in Rule 475. In order to fire diesel/distillate owner/operator will be required to demonstrate compliance before being allowed to burn these fuels.

Part V (C) (1). Water injection is required at all Combustion Turbine loads in excess of 20 MW(e) net, at a rate which has been demonstrated to limit NO_x emissions to less than 42 parts per million by volume (ppmv) at 15% O_2 when using Natural Gas fuel and 65 ppmv at 15% O_2 when using distillate fuel, in accordance with Rule 1158. The water injection range varies with the turbine load between "0" gallons per minute and "100" gallons per minute for each turbine being operated.
[Rule 204 - *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]

[**SIP Pending:** Rule 1158 - *Electric Utility Operations* as adopted 08/25/97 and submitted 03/10/98]
Pursuant to EPA Objection, this condition has been re-worded to state the acceptable range of water injection rate for each turbine being operated based on historic CEMS data.

Part V (C) (3). Blade path temperature maintenance tests are allowed to be conducted once per month for a period not to exceed two (2) hours without water injection. The MDAQMD shall be notified by telephone prior to the start and at the completion of each test. Facility must comply with the emission limitations contained elsewhere in this Federal Operating Permit when water injection system is "turned off" for testing.
[Rule 204 - *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
[**SIP Pending:** Rule 1158 - *Electric Utility Operations* as adopted 08/25/97 and submitted 03/10/98]

Pursuant to EPA Objection, this condition has been re-worded to require compliance with applicable emission limits when water injection system is turned off for blade path temperature maintenance testing.

Part II (D) (3). Owner / Operator shall not operate the Auxiliary Boiler without first obtaining a District Approved Source Test Protocol to test the Auxiliary Boiler for compliance with the following applicable emission limits. Any source testing must be witnessed and approved by the District. Compliance with NO_x emission limits shall be based upon hourly averages. Particulate matter concentrations and emission rates shall be based on the average of three (3) one-hour runs. Pollutant emission rate and concentrations for Auxiliary Boiler at full load shall be limited to the following (see Part III (B)(1 through 7) for testing requirements):

	Natural Gas	No. 2 Diesel
PM	0.003 gr/dscf @ 3 % excess O_2	0.011 gr/dscf @ 3 % excess O_2
SO_2	0.3 ppmv @ 3 % excess O_2	109 ppmv @ 3 % excess O_2
CO	41 ppmv @ 3 % excess O_2	44 ppmv @ 3 % excess O_2
VOC	0.13 lb/hr	0.07 lb/hr
NO_x	6.4 lb/hr	6.6 lb/hr

[MDAQMD Permit # B001892, Condition # 3: Rule 204 - *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]

The Auxiliary Boiler is not currently being used and has not been fired in several years, further there are no plans to use the Auxiliary Boiler again. However, Pursuant to EPA Objection, this condition has been re-worded to require a demonstration of compliance with applicable emission limits before the unit can be operated. I.e. "a re-startup source test" will be required.

Part III (B) (7). Compliance with Auxiliary Boiler NO_x and/or Particulate Matter emission limits (concentration and/or mass emission rate) shall be established by exhaust stack emissions sampling at a minimum of every 5 years (60 months) per Rule 475 if Auxiliary Boiler is operational. If Auxiliary Boiler is non-operational, and remains non-operational, then compliance testing will not be required.
[*40 CFR 70.6 (a)(1) - Periodic Monitoring Requirements] (for Periodic Monitoring Requirements, see Part III, section B, conditions 1 through 7)*
[Rule 204 - *Permit Conditions*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(B) - 11/09/78 43 FR 52237; Current Rule Version = 07/25/77]
[**SIP Pending:** Rule 475 - *Electric Power Generating Equipment* as adopted 08/25/97 and submitted 03/10/98]
[**SIP Pending:** Rule 1158 - *Electric Utility Operations* as adopted 08/25/97 and submitted 03/10/98]

The Auxiliary Boiler is not currently being used and has not been fired in several years, further there are no plans to use the Auxiliary Boiler again. However, Pursuant to EPA Objection, this condition has been re-worded to require demonstration of compliance at periodic intervals if the Auxiliary Boiler is re-started and used periodically. Otherwise testing will not be required if Auxiliary Boiler remains non-operational.

APPENDIX "A"

STRONGLY RECOMMENDED CHANGES:

Part II (A) (20).` Owner/Operator shall not discharge into the atmosphere from this facility from the burning of fuel, combustion contaminants exceeding 0.23 gram per cubic meter (0.1 grain per cubic foot) of gas calculated to 12 percent of carbon dioxide (CO_2) at standard conditions averaged over a minimum of 25 consecutive minutes.
[Rule 409 - *Combustion Contaminants*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(C) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]

Pursuant to EPA Recommendation, see attached copy of Source Test Results which demonstrate that boilers and turbines combusting natural gas complies with the emission limits specified in Rule 475. In order to fire diesel/distillate in the future, owner/operator will be required to demonstrate compliance with MDAQMD Rule 409 before being allowed to burn diesel/distillate fuels.

Part II (B) (1). Owner/Operator shall comply with the following NO_x RACT Emissions Limits for Combined-cycle Turbines:

(a) All Combined-Cycle Turbine Units shall not emit NO_x emissions in excess of the following concentrations:

NO_x Limit
42 ppmv on PUC quality natural gas fuels
65 ppmv on diesel/distillate fuels

(b) All ppmv emission limits for combined-cycle turbine unit is referenced at dry stack-gas conditions and 15.0 percent by volume stack-gas oxygen as an hourly average.

(c) Turbines and Duct Burners exhaust through Heat Recovery Steam Generators which exhaust through headers and exhaust stacks. These total emissions are measured by CEMS determining compliance with Rule 1158 emission limits.

[SIP Pending: Rule 1158 - *Electric Utility Operations* as adopted 08/25/97 and submitted 03/10/98]

Pursuant to EPA Recommendation, this condition has been re-worded to specify how MDAQMD Rule 1158 emission limitations apply to Turbines and Duct Burners. Please see above example.

Part II, Section H, Conditions: *The conditions for MDAQMD Rule 462 vapor recovery system efficiency and control requirements have been dropped and section "H" renumbered due to federal operating permit being conditioned to allow storage of diesel/distillate only with a true vapor pressure less than 1.5 psia @ 290 degrees Fahrenheit and 0.5 psia @ 230 degrees Fahrenheit in compliance with MDAQMD Rule 463. The following is offered as further justification.*

MDAQMD Permit # T001100, Tank # 1, at the Coolwater Generating Station has a fixed roof with internal floating roof in place. Further, by permit condition, only diesel/distillate with a True Vapor Pressure less than 1.5 psia is allowed to be stored in the tank and used

in the boilers and turbines. In addition, MDAQMD Rule 463, limits diesel stored and used as fuel, having a true vapor pressure not exceeding 0.5 psia at 230 degrees Fahrenheit. The diesel / distillate storage temperature is ambient temperature which, even in the desert, is much less than 230 degrees Fahrenheit. Appropriate Recordkeeping (with fuel supplier certifications) and Reporting will be required to ensure that compliance with the vapor pressure requirements will be achieved and maintained.

40 CFR 60, 60.110 (reference SJVUAPCD Tank Template No: SJV-TK-1-0)
This CFR section limits the true vapor pressure of the petroleum liquid stored to less than 1.5 psia for tanks without floating roofs or vapor recovery systems. Tanks covered by the SJVUAPCD Template No: SJV-TK-1-0 are limited to storing petroleum liquid with a vapor pressure less than 1.5 psia. See template permit condition #1. For tanks storing petroleum liquid with a true vapor pressure less than 1.0 psia, no monitoring or recordkeeping is required by the Template No: SJV-TK-1-0. If the true vapor pressure of the petroleum liquid being stored in the tank is between 1.0 and 1.5 psia, monitoring and recordkeeping is required. See template permit conditions #2-5.

Part II (A) (17): Owner/Operator shall not discharge into the atmosphere from this facility, from any single source of emissions whatsoever, Sulfur compounds, which would exist as a liquid or gas at standard conditions, calculated as sulfur dioxide (SO_2) greater than or equal to 500 ppm by volume.
[40 CFR 70.6 (a)(1) - Periodic Monitoring Requirements] (for Periodic Monitoring Requirements, see: Part II, section A, condition 22; Part III, section C, conditions 11 and 22; Part V, section C, condition 4; Part V, section D, condition 3; Part V, section I, condition 3)
[Rule 406 - *Specific Contaminants*; Version in SIP = 07/25/77, 40 CFR 52.220(c)(42)(xiii)(A) - 12/21/78 43 FR 52489, Subpart (a) only; Current Rule Version = 02/20/79]

Rule 406 specifies standard conditions, but not dry. Standard conditions for Rule 406 will be calculated as wet.

Calculate the SO_2 concentration in the boiler / turbine exhaust gas using the following assumptions/calculations:

1. Based on U.S. EPA AP-42, Section 1.4, Table 1.4-2, the emission factor SO_2 is 0.6 lb of SO_2 produced / 10^6 ft^3 of natural gas burned.
2. The heating value of the natural gas is 1000 Btu / ft^3.
3. From 40 CFR 60, Appendix A, Method 19 the F_w factor for natural gas is 10,610 wscf / 10^6 Btu (68 degrees Fahrenheit, 0 % excess O_2). Rule 406 specifies the SO_2 concentration at standard conditions, not dry.
4. For purposes of this calculation, excess air from the combustion process will not be considered in calculating the SO_2 concentration & is the most conservative assumption.

Cubic feet of SO_2 produced per 10^6 ft^3 of natural gas combusted:
(0.6 lb) (1 lb mol / 64 lb) (385 ft^3 / mol) = 3.61 ft^3 (385 ft^3 / mol is at 68 degrees Fahrenheit)

Standard cubic feet of combustion gas formed from 10^6 ft^3 of natural gas burned per 40 CFR 60, Appendix A, Method 19:
(10^6 ft^3 gas) (1000 Btu / ft^3) (10,610 wscf / 10^6 Btu) = 10,610,000 wscf

SO_2 Concentration = 3.61 ft^3 / 10.61 x 10^6 ft^3 = 0.34 ppmv

Conclusion: Boiler exhaust SO_2 concentration of 0.34 ppmv complies with Rule 406 SO_2 limit of 500 ppmv.

The following Copies of Correspondence and Stack Source Test Results are only being included with the package being mailed via the US Postal Service Priority Mail, because electronic copies are not available: